Kansas Department of Health and Environment
Proposed Amended Regulation

Article 35. Radiation

Part 1. General

28-35-135p. Definitions. As used in these regulations, each of the following terms shall have the meaning assigned in this regulation: (a) "Package" means a container and packing material, together with the radioactive contents, as presented for transport.

(b) "Panoramic dry-source-storage irradiator" means an irradiator in which the irradiations occur in air in areas potentially accessible to personnel and in which the sources are stored in shields made of solid materials. This term shall include beam-type dry-source-storage irradiators in which one narrow beam of radiation is produced for performing irradiations.

(c) "Panoramic wet-source-storage irradiator" means an irradiator in which the irradiations occur in air in areas potentially accessible to personnel and in which the sources are stored underwater in a storage pool.

(d) "Particle accelerator" means any machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of one mega electron volt (MeV).

(e) "Patient" means an individual subjected to examination, diagnosis, or treatment.

(f) “Patient intervention” means any action by the patient or human research subject, whether intentional or unintentional, that affects the prescribed treatment. This term shall include dislodging or removing any treatment device and prematurely terminating the prescribed treatment.

(g) “Peak tube potential” means the maximum value of the potential differences across an X-ray tube during an exposure. This term is also referred to as “kilovolts peak (kVp).”

(h) “Periodic quality-assurance check” means a procedure that is performed to ensure that the previous calibration continues to be valid.

(i) “Permanent radiographic installation” means an enclosed, shielded room, cell, or vault, not located at a temporary job site, in which radiography is performed.

(j) “Person” means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this or any other state, or political subdivision or agency, excluding federal government agencies.

(k) “Personnel-monitoring equipment” means any device designed to be carried or worn by an individual and used to measure the exposure of that individual to radiation. For purposes of these regulations, “PMD,” which means “personnel-monitoring device,” shall be an equivalent term.

(l) “Personnel supervision” means guidance and instruction by the supervisor who is physically present at the job site and who is watching the performance of the operation in such proximity that contact can be maintained and immediate assistance given, as required.

(m) “Phantom” means a volume of material behaving in a manner similar to that of tissue, with respect to the attenuation and scattering of radiation.

(n) “Pharmacist” means any individual licensed to practice pharmacy under K.S.A. 65-1626 et seq., and amendments thereto.

(o) “Phototimer” means a device used for controlling radiation exposures to image receptors by limiting the amount of radiation that reaches a radiation-monitoring device or devices. The radiation-monitoring device or devices are part of an electronic circuit that controls the period of time during which the tube is activated. For purposes of these regulations, “automatic exposure control” is an equivalent term.

(p) “Physician” means any individual licensed to practice the healing arts specified in K.S.A. 65-2869, K.S.A. 65-2870, or K.S.A. 65-2871, and amendments thereto.

(q) “Planned special exposure” means an infrequent exposure to radiation, separate from and in addition to the annual occupational dose limits.

(r) “Podiatry” means the activities authorized and specified in K.S.A. 65-2001 et seq., and amendments thereto.

(s) “Pool irradiator” means any irradiator at which the sources are stored or used in a pool of water, including panoramic wet-source-storage irradiators and underwater irradiators.

(t) “Portable X-ray equipment” means X-ray equipment designed to be hand-carried.

(u) “Position indication device (PID)” means a device on dental X-ray equipment used to indicate the beam position and to establish a definite source-to-skin-surface distance. A PID can incorporate or serve as a beam-limiting device.

(v) “Positive beam limitation” means the automatic or semiautomatic adjustment of an X-ray beam to the size of the selected image receptor. Exposures cannot be made without this adjustment.

(w) “Practical examination” means a demonstration by personnel through the application of safety principles, including the use of all procedures and equipment.

(x) “Preceptor” means an individual who provides or directs the training and experience required for another individual to become an authorized user, an authorized medical physicist, an authorized nuclear pharmacist, or a radiation safety officer.

(y) “Prescribed dosage” means the quantity of radiopharmaceutical activity documented as follows:

(1) In a written directive; or

(2) either in the diagnostic clinical procedures manual or in any appropriate record in accordance with the directions of the authorized user for diagnostic procedures.

(z) “Prescribed dose” means any of the following:

(1) For gamma stereotactic radiosurgery, the total dose as documented in the written directive;

(2) for teletherapy, the total dose and dose per fraction as documented in the written directive; or

(3) for brachytherapy, either the total source strength and exposure time or the total dose, as documented in the written directive.

This term shall not apply to part 6 of these regulations.

(aa) “Primary beam” means ionizing radiation that passes through an aperture of the source housing by a direct path from the X-ray tube or a radioactive source located in the radiation source housing.

(bb) “Primary dose-monitoring system” means a system that monitors the useful beam during irradiation and that terminates irradiation when a preselected number of dose monitor units are acquired.

(cc) “Primary protective barrier” means a barrier of attenuating materials used to reduce the useful X-ray beam to the required degree.

(dd) “Product conveyor system” means a system for moving the product to be irradiated to, from, and within the area where irradiation takes place.

(ee) “Projected dose” means a future dose calculated for a specified time period on the basis of estimated or measured initial concentrations of radionuclides or exposure rates and in the absence of protective actions.

(ff) “Protective action” means an action taken by members of the public to protect themselves from radiation from an accident involving radioactive material. This term may include sheltering, evacuation, relocation, control of access, administration of a radioprotective drug, decontamination of persons, decontamination of land or property, and controls placed on food or water.

(gg) “Protective action guide” means a projected dose from an accidental release of radioactive material at which protective action may be considered.

(hh) “Protective apron” means an apron made of radiation-absorbing materials used to reduce radiation exposure.

(ii) “Protective barrier” means a barrier of attenuating materials used to reduce radiation exposure to the required degree.

(jj) “Protective glove” means a glove made of radiation-absorbing materials used to reduce radiation exposure.

(kk) “Public dose” means the dose received by a member of the public from exposure to radiation, radioactive material released by a licensee or registrant, or any other source of radiation under the control of the licensee or registrant. This term shall not include an occupational dose, a dose received from background radiation, a dose received as a patient from medical practices, and a dose received from voluntary participation in a medical research program.

(ll) “Pulse dose-rate remote afterloader” means a special type of remote afterloading brachytherapy device that meets all of the following conditions:

(1) The device uses a single source capable of delivering more than 12 grays per hour.

(2) The source activity of the device is approximately one-tenth of the activity of typical high dose-rate remote afterloader sources.

(3) The device is used to stimulate the radiobiology of a low dose-rate treatment by inserting the source for a given fraction of each hour.

(mm) “Pyrophoric liquid” means any liquid that ignites spontaneously in dry or moist air at or below 130°F (54.4°C).

(nn) “Pyrophoric solid” means any solid material, other than one classified as an explosive, that under normal conditions results in the following:

(1) Is liable to cause fires through friction or retained heat from manufacturing or processing;

(2) is ignited readily; and

(3) if ignited, burns vigorously and persistently enough to create a serious transportation, handling, or disposal hazard, including spontaneously combustible and water-reactive materials. (Authorized by K.S.A. 48-1607; implementing K.S.A. 48-1603 and 48-1607; effective Dec. 30, 2005; amended P-_____.)